appointment as a Judge of the Supreme Court.

Solar Energy Programme for Water Pumps

2762. SHRI MURLIDHAR CHANDRAKANT BHANDARE: Will the PRIME MINISTER be pleased to state the progress achieved so far to use solar energy for operation of agricultural water pumps in the villages?

THE MINISTER OF STATE OF THE MINISTRY OF PLANNING AND IMPLEMENTATION AND MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI SUKH RAM): As part of the solar photovoltaic demonstration programme of the Ministry of Non-Conventional Energy Sources, solar powered pumping systems with the capacity of 300-360 watts were installed in various parts of the country. These pumps have proved useful in places where the total pumping head is less than 8 meters and for cash crops grown in small land holdings. Larger capacity pumping systems of 600-900 watts have been developed and tested. The photovoltaic programme will incorporate such larger capacity pumps during the Eighth Plan period.

Setting up of the three Solar Dryers in the Region of Haryana

2763. SHRI RAMDAS AGARWAL: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that Department of Non-Conventional Energy Sources (DNES) paid Rs. 41.34 lakhs to the National Industrial Development Corporation (NIDC) for setting up three solar dryers at Rai Bareilly, Sultanpur and Sonepat;

(b) whether it is also a fact that NIDC failed to set up the dryers and refunded only Rs. 37.92 lakhs in May, 1989 retaining Rs. 3.42 lakhs expended by it;

(c) if so, what are the details thereof and the reasons for non-execution of the job;

(d) whether in this case Government had not gone into the accountability for inadequate techno-economic feasibility of the project before the release of substantial budgetary resources as interest free advances to a Public Sector Undertaking; and

(e) if so, who is responsible for this huge loss and non-installation of solar dryers and whether Government propose to hold an independent inquiry?

THE MINISTER OF STATE OF THE MINISTRY OF PLANNING AND PROGRAMME IMPLEMENTATION AND MINISTER OF STATE IN THE MINISTRY OF NONCONVENTIONAL ENERGY SOURCES (SHRI SUKH RAM): (a) Yes, Sir.

(b) The Project had been terminated and NIDC has returned the total sum of Rs. 41.34 lakh.

(c) to (e) As, technology was not available for solar drying, the Projects were undertaken to evolve designs for multi-purpose solar dryer. The NIDC was assigned the work for designing the dryers and implementation of the projects. The designs were evaluated by the experts committee consisting of members from various organisations working in the area of solar thermal energy.

NIDC could not succeed in getting the projects going as the contractor appointed by it did not even start the work for couple of years. Considering the time and financial over-runs, the Government decided to close-down the project.

Use of Solar Energy in Ladakh Region

2764. SHRI JAGMOHAN: Will the PRIME MINISTER be pleased to state:

(a) what progress has been made in making effective use of solar energy in Ladakh region to heat up houses and work places;

(b) whether any experimental scheme has been launched by Government directly or through non-Governmental agencies in this regard; and

(c) if so, what are the results thereof?

THE MINISTER OF STATE OF THE MINISTRY OF PLANNING AND PROGRAMME IMPLEMENTATION AND MINISTER OF STATE IN THE MINISTRY ON NONCONVENTIONAL ENERGY SOURCES (SHRI SUKH RAM): (a) to (c) The Government has taken up number of demonstration projects on utilisation of solar energy for space heating application in Ladakh region. Large number of solar huts have been provided to the Indo-Tibetian Boarder Police Force in Leh and other areas of Ladakh. Three community buildings namely, a school, a hospital and a mess have been constructed using both passive and active solar heating systems. Couple of green houses have also been constructed for extending the cultivation periods for vegetables, flowers etc. All these projects have been taken to demonstrate the technologies to the local people so that they can adopt these. Besides these projects, some of the non-Governmental organisations and voluntary agencies are also active in demonstrating similar technologies in this region.

Commercial Exploitation of Solar Engergy

2765. SHRI KRISHAN KUMAR BIRLA: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that Government are drawing a comprehensive plan to commercially exploit solar energy on large scale for power generation in this country;

(b) if so, the details of the proposed plan;

(c) whether the assistance of any foreign firm/Government has been sought for the task;

(d) if so, the details thereof; and

(e) the details of the plan envisaged during the current plan period?

THE MINISTER OF STATE IN THE MINISTRY OF PLANNING AND PROGRAMME IMPLEMENTATION AND MINISTRER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI SUKH RAM): (a) to (e) The Eighth Plan envisages programmes for extensive use of renewable energy systems for various applications including for power generation. Of the two routes for power generation from solar energy, viz., solar photovoltaics and solar thermal, it is proposed to instal 3 MW of photovoltaic devices in the Eighth Plan period. The devices include water pumping system, street lighting, domestic lighting, community television and village level power plants. Photovoltaic sytems are already being used in the country on a commercial basis for a variety of other applications such as telecommunications, railway signalling power for off-shore platforms, cathodic protection, microwave repeater stations and TV transmission.

Regarding solar thermal power generation, efforts are underway to locate the sources of technology and assistance for a megawatt scale project to serve R&D and demonstration purposes.

गैर-पारम्परिक ऊर्जा स्रोतों की लोकप्रियता

2766. **मौलाना ओबैदुल्ला खान आजमी:** क्या प्रधान मंत्री यह बताने की कृपा करेंगे कि:

(क) क्या यह सच है कि गैर-पारम्परिक ऊर्जा स्रोतों को लोकप्रिय बनाने में कोई विशेष सफलता नहीं मिली है;

(ख) यदि हां, तो उसका ब्यौरा क्या है और इसके क्या कारण हैं;

(ग) क्या यह सच है कि उत्तर प्रदेश में जिला और खंड स्तरों पर कर्मचारी इस कार्य में पर्याप्त रुचि नहीं लेते है; और